Building Great Engineers (BGE)

As of 31 August 2010

Background/Purpose/Goal:

The Building Great Engineers initiative is a "cradle-to-grave" strategy designed to attract, develop and retain world-class engineer leaders who are technically and tactically capable and competent to deliver full spectrum engineering in the 21st century. The plan's goal is to get the right people with the right capability at the right point in time and space to deliver the desired engineer effect in full spectrum operations.

Initiatives and Working Groups:

Five types of initiatives have been the drivers for success. These include accessions, training and education, employment, retention, and strategic communication. The U.S. Army Engineer School (USAES) is working specific initiatives within our training courses including a university model for training, environmental base camp training, and shifting to current operating environment in all training scenarios. Most recently, ENFORCE 2010 built on the issues and solutions that BGE working groups had been working on since ENFORCE 2008. During the working group portion of ENFORCE, attendees representing the entire Engineer Regiment and all ranks developed specific tasks that will allow us to build great engineers across the regiment.

Major Focus Areas:

- Access Engineers
- Engineer Leader University
- Engineer Captains Career Course (ECCC) Redesign
- Green Pages
- Professional Skill Identifiers
- Brigade Engineer Battalion
- Coach and Advisor Program
- Wounded and Fallen Engineer Programs

On Going Actions:

Accessions: As a key starting point, our accessions efforts have included dialogue and engagements with both current and potential engineers. We have seen an 18 percent increase in the number of degreed engineers accessed into the regiment (38 percent to 56 percent) in the past year. ROTC contributions are now 43 percent degreed engineers, and West Point contributions are 70 percent degreed engineers. Our Engineer Personnel Proponent Office continues to engage selected universities with heavy engineer and math degree programs. Their recent accession efforts included Warrior Forge, West Point tailgate and senior leader panels, and engineer professional organizations.

Training and Education: We have made remarkable strides toward expanding our efforts to maximize learning effectiveness by working toward a university approach model to training delivery. Initiatives include the Virtual Battle Space System (VBS2), development versus PowerPoint briefing presentations, counter-IED training institutionalization, ECCC and Engineer Basic Officer Leader Course (EBOLC) redesign and Advanced Leaders Course and Senior Leaders Course (ALC/SLC) redesign, opportunities for the 249th Engineer Battalion (Prime Power) move, and potential for Geospatial move to Fort Leonard Wood. The integration of VBS2 into our classrooms will revolutionize instruction by making it more interactive with our students. Key to our continued success will be a

focus on collaborative problem solving skills in which instructors facilitate rather than lecture, to include peer-to-peer learning given the enormous amount of operational experience that our leaders have. The bottom line can be expressed in three words: Rigor, Relevance, and Relationships.

Employment: In addition to training, we have worked to better employ the existing talent in the regiment. There has been solid progress toward increasing employment visibility through our Green Pages initiative that better aligns officer supply and demand. As a result, the Army, and specifically our regiment, will gain visibility of officers' skill sets, education, life-experience, and other background information that is currently not maintained in legacy Army personnel systems. In essence, Green Pages matches the talent it needs (demands) against the talent it already has (supply). Officers communicate their desired future assignments and then search all available positions. More important, officers can judge the emerging skill demands and develop themselves to better meet them. In addition, we have finally established skill identifiers to support career development, officer tracking, and talent management as part of a Military Occupational Change of Structure proposal being submitted thru TRADOC to Department of the Army in October 2010. Officers will be managed and assigned to coded positions based on officer talents (skill identifiers), thus allowing our regiment to fill coded positions with officers who possess the right mix of skills.

Not only have we worked to better align officer talent, but we have also worked to align engineering capabilities with needs across the full spectrum of engineer operations. This includes the pending Army-level decision on implementation of the Brigade Engineer Battalion into maneuver BCTs. This will provide needed problem-solving ability to maneuver forces at the brigade level. In addition, we have worked to return selected leaders with operational experience back to USAES, USACE, and to support warfighter function forums. We have also begun the Military Working Dog initiative to further provide deployed Engineer units with the capabilities to successfully complete their mission.

Retention: Relationships are key in the retention effort more than others. As we work toward linking career advisors and mentors with junior officers, we are seeking discussions on specific coaching and career or technical advice, and engineer specific professional development opportunities. Branch mentorship for junior engineers, especially "outlying" officers who work outside the normal engineer chain of command, remains a tough challenge. The framework for these discussions lines up along active duty, Reserve, and National Guard experiences and footprint. Engineer brigades, battalions, and engineer districts focus on the active duty portion. First Army East and West Regions handle Reserve coverage, and National Guard coverage is naturally aligned by states.

We have also leveraged higher education with the Missouri S&T engineering master degree program as means of increasing officer retention. Notably, Missouri S&T recently opened an explosive engineer master's degree program for which many of our officers qualify. The Missouri S&T explosive engineering program is designed to provide formalized education in explosives engineering. Students are exposed to the theoretical and practical approaches of explosives engineering, and will learn analysis and design of explosive-related systems; both natural and man-made structure effects. The explosives engineering certificate program is open to all persons holding a B.S., M.S., or Ph.D. degree and who have a minimum of 12-months of post-B.S. professional employment experience.

Strategic Communications: We have made enormous progress in strategic communications. This continues to enhance our sense of regiment by strengthening our ties with engineer professional organizations, renovation of our Engineer Museum, and establishing wounded engineer and fallen engineer programs. Throughout the last few years we have also implemented several knowledge management mediums. Of particular note is our "open arms" commitment to engineer veteran reunions. During one recent event, the 299th Engineers of Vietnam, the Defenders of Dak To, traded war stories with current students of the ECCC, ALC and EBOLC.